

CALL BEFORE YOU DIG

Suggested Marking Guidelines & The California One Call Law

1-800-227-2600



- **Suggested Marking Guidelines:** Page 2-7.
- **Contractor State License Board Enforcement Business and Professions Code Section 7110:** Page 8.
- **Requirements Of Government Code 4216:** Page 9-16.
- Outline your excavation area with white paint [4216.2 (a)] Page 12.
- Call USA two working days before you dig [4216.2 (a)] Page 12.
- USA will notify its members of your excavation [4216.2 (c)] Page 12.
- The USA members will provide information about, mark or stake the horizontal path of their facilities, or will advise of clearance [4216.3 (a)] Page 3.
- Expose the underground facilities by hand before using power equipment [4216.4 (a)] Page 14.
- The USA request number is valid for 14 calendar days, if your excavation extends beyond that you must contact USA every 14 days [4216. (e)] Page 11.
- Keep the USA request number to validate your excavation permit [4216.9 (a)] Page 16.

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Suggested Guidelines for Prospective Excavation Site Delineation and Facility Owner Location Markout

General Guidelines

This guide provides for temporary uniform surface marking of both planned excavations and of substructures in potential conflict of planned excavations. White markings are used for excavation delineation. Substructure markings are of a specific color. Appropriate color and common abbreviations are listed herein. Full facility operator and excavator responsibilities are detailed in Section 1, Chapter 3.1 “Protection of Underground Infrastructure”, Article 2, of California Code 4216 through 4216.9.

Note: Temporary markings should be clearly seen, functional, and considerate to surface aesthetics and the local community. Also, check to see if any local ordinances apply.

Marking In Paved Areas

Avoid excessive or oversized marking, especially if marking outside the excavation area. Conditions permitting, use spray chalk paints, water based paints or equivalent less permanent type marking. Limit length, height, and interval of marks to those recommended. Letters and numbers should not exceed 3” to 6” in height.

Marking in Non-Paved Areas

When paint is not used, use appropriately colored stakes, lath, pennants or chalk lines. Select marker types that are most compatible to the purpose and marking surface. Adhere to paved area marking suggestions to the extent practical.

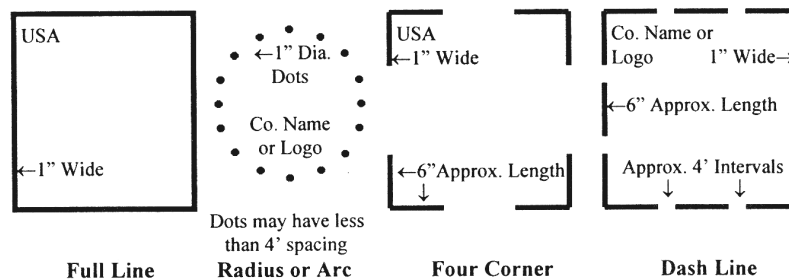
If any marking information is omitted due to site conditions, communicate omitted data by direct contact, signs, phone, fax, etc.

“Offset” markings should clearly indicate the direction, the distance, and the path of facility or excavation.

Guidelines For Excavation Delineation

- Excavators are reminded that pre-marking (delineation) of excavations is a requirement of California Code 4216.
- Delineate the area to be excavated before calling USA. Delineated areas should be identified in white markings with USA, or the requesters company name or logo within the pre-marked zones (see examples).
- Failure to pre-mark when practical may jeopardize your permit, or result in civil penalty.
- Code 4216.2 (f) requires: “If pre-marking is not practical, the excavator shall contact” . . . USA . . . “to advise the operators that the excavator shall identify the area to be excavated in another manner sufficient to enable the operator to determine the exact area of the excavation to be field marked.”
- Code 4216.2 (e) states delineation must not be misleading, duplicative or misinterpreted as traffic or pedestrian control.

Single Point Excavations Markings

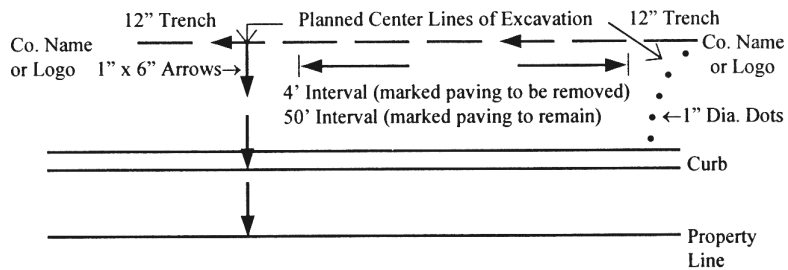


Delineate the exact area of excavation through the use of dots or dashes, or a continuous solid line. Limit the size of each dash to approximately 6” in length and 1” in width with interval spacing not less than approximately 4 feet. Dots of approximately 1” diameter are typically used to define arcs or radii and may be placed at closer intervals in lieu of dashes. Limit width of lines to 1”.

Trenching, Boring, or Other Continuous Type Excavations

Mark centerline of planned excavation with 6” x 1” arrows (approx. 4’ apart) to show direction of excavation. For boring or continuous operations where marked paving is not to be removed, mark at critical points with maximum mark separation of approx. 50’. Mark lateral excavations with arrows showing excavation direction from centerline with marks at curb or property line if

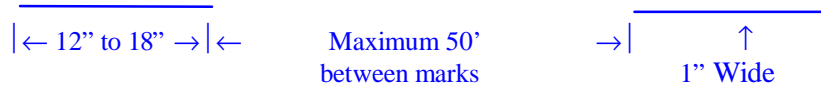
crossed. Intermittently indicate excavation width on either side of centerline in 3" to 6" high figures. Dots may be used for curves and closer interval marking.



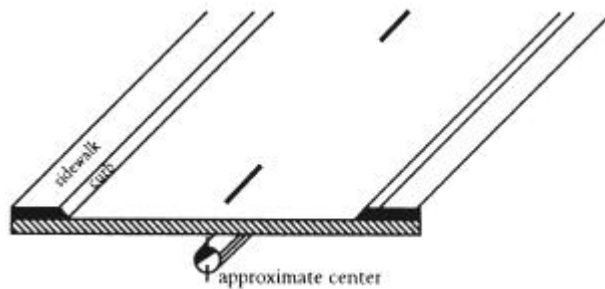
Continuous Excavation Marking

Guidelines For Facility Owner Location Markout

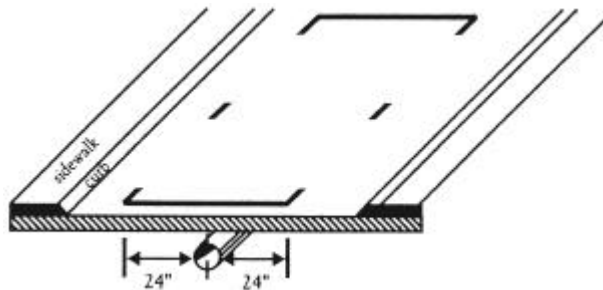
- 1 Marks in the appropriate color should be approximately 12" to 18" in length, spaced no more than 50' apart.



- 2 The marks should be placed over the approximate center of the facility.



- 3 As an alternative, or in addition to, marks can be placed on either side of the facility to define the "Hand Dig Area". The "Hand Dig Area" is defined as the width of the facility itself plus the tolerance zone of 24" on either side of the facility.



- 4 An operator designator, such as company initials, should be placed at the beginning and end of the proposed work area. This instead of a generic designator such as TEL to avoid confusion between more than one operator of the same type of facility.

CTYSAC

CITIZENS

GTE

- 5 Information as to the size and composition of the facility should be marked at an appropriate frequency, if known. Examples are: the number of ducts in a multi-duct structure, diameter of a pipeline, and whether it is steel, plastic, bare cable, etc.

CCWD
4" PE

RSVTEL
9 DUCTS

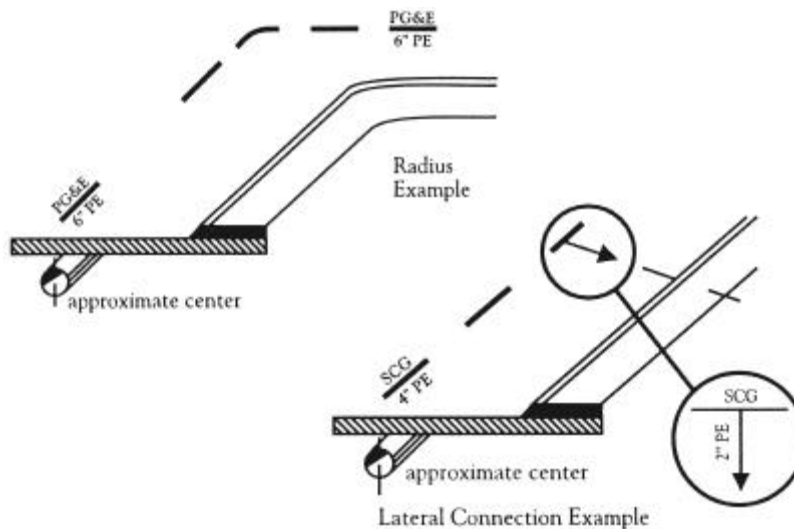
UNOCAL
12" STL

- 6 If known, a facility installed in a casing should be identified as such. Examples are: 6" polyethylene in 12" steel = 6"PE/12"STL, fiber optic in 4" steel = FO/4"STL.

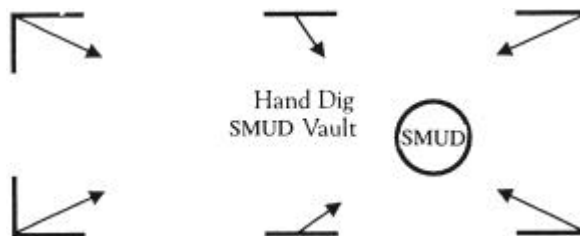
ACWD
6" PE/12" STL

AT&T
FO/4" STL

7 Changes in direction and lateral connections should be clearly indicated at the point where the change in direction or connection occurs, with an arrow indicating the path of the facility. A radius should be indicated with marks describing the arc.



8 Structures, such as vaults, that are physically larger than obvious surface indications, should be marked so as to generally define the parameters of the structure.



9 Termination points or dead ends should be indicated as such.



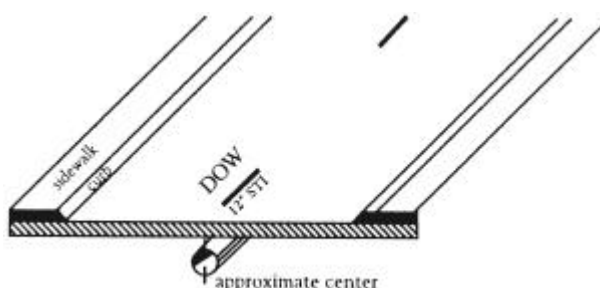
10 If there is "no conflict" and the work area has been pre-marked, no conflict should be marked along with company designator within the delineated work area * or the excavator should be notified verbally, or in writing (e.g. fax). If the work area is not delineated, the excavator should likewise be notified verbally or in writing.

* Caution - Allow adequate space for all facility mark-outs.

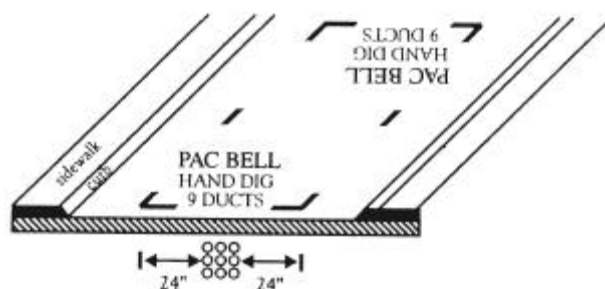
No conflict marking indicates; there are no facilities within the scope of the delineation, or when there is no delineation, there are no facilities within the work area as described on the locate ticket.



11 Example of marking with an implied 60" "Hand Dig Area" (12" facility plus 24" to the right and 24" to the left).



12 Example of marking with “Hand Dig Area” outlined.



Color Code Identifiers

| | | | |
|--------|---------------------|--------|------------------------|
| Red | Electric | Yellow | Gas/Oil/Steam/Chemical |
| Orange | Communications/CATV | Blue | Water |
| Green | Sewer/Storm Drain | Purple | Reclaimed Water |
| Pink | Temporary Survey | White | Proposed Excavation |

Common Marking Identifiers

| | | | |
|----|-----------------|-----|---------------------------|
| E | Electric | TEL | Telephone |
| FO | Fiber Optic | TS | Traffic Signal |
| G | Gas | TV | Television |
| SD | Storm Drain | W | Water / Reclaimed Water |
| SL | Street Lighting | USA | Underground Service Alert |
| S | Sewer | | |

Common Abbreviations And Descriptions As Used In Underground Construction.

| | | | |
|-----|-------------------------------------|-------|---------------------------------|
| ABS | Acrylonitrile - Butadiene - Styrene | MTD | Multiple Tile Duct |
| ACP | Asbestos Cement Pipe | P | Plastic (conduit or pipe) |
| CAP | Corrugated Aluminum Pipe | PB | Pull Box |
| CIP | Cast Iron Pipe | PC | Plastic Conduit |
| CMC | Cement Mortar Coated | PE | Polyethylene |
| CML | Cement Mortar Lined | PL | Property Line |
| CSP | Corrugated Steel Pipe | PVC | Polyvinyl Chloride |
| CU | Copper | R | Radius |
| DIP | Ductile Iron Pipe | RCB | Reinforced Concrete Box |
| DU | Duct | RCP | Reinforced Concrete Pipe |
| ELC | Electrolier Lighting Conduit | SCCP | Steel Cylinder Concrete Pipe |
| FC | Fiber Conduit | STL | Steel |
| GIP | Galvanized Iron Pipe | STRUC | Structure |
| GSP | Galvanized Steel Pipe | T | Transmission facility |
| IP | Iron Pipe | TR | Transite (asbestos cement pipe) |
| | | TRANS | Transition |

MCD
MH

Multiple Concrete Duct
Manhole

TSC
VCP

Traffic Signal Conduit
Vertrified Clay Pipe

CONTRACTOR STATE LICENSE BOARD ENFORCEMENT BUSINESS AND PROFESSIONS CODE 7110

Assembly Bill No. 2719

An Act to amend Section 7110 of the Business and Professions Code, relating to contractors.

LEGISLATIVE COUNSEL'S DIGEST

AB2719, as amended, Frazee. Contractors.

Existing law provides that violation of specified laws by a licensed contractor constitutes cause for disciplinary action.

This bill would include within the specified laws provisions dealing with excavations and subsurface installations.

The people of the State of California do enact as follows:

SECTION 1. Section 7110 of the Business and Professions Code is amended to read:

7110. Willful or deliberate disregard and violation of the building laws of the state, or of any political subdivision thereof, or of the minimum painting standards adopted pursuant to Section 37040 of the Health and Safety Code, or of Section 8505 or 8556 of this code, or of Sections 1689.5 to 1689.8, inclusive, or Section 1689.10 to 1689.13, inclusive, of Civil Code, or of the safety laws or labor laws or compensation insurance laws or Unemployment Insurance Code of the state, or violation by any licensee of any provision of the Health and Safety Code or Water Code, relating to the digging, boring, or drilling of water wells, or Article 2 (commencing with Section 4216) of Chapter 3.1 of Division 5 of Title 1 of the Government Code, constitutes a cause for disciplinary action.

Assembly Bill No. 73

CHAPTER 928

An act to amend the heading of Chapter 3.1 (commencing with Section 4215) of Division 5 of Title 1 of , to add the heading of Article 1 (commencing with Section 4215) to Chapter 3.1 of Division 5 of Title 1, to add Article 2 (commencing with Section 4216) to Chapter 3.1 of Division 5 of Title 1 of, and to repeal Sections 4216 and 4217 of, the Government Code, relating to underground installations.

[Approved by Governor September 26, 1989. Filed with
Secretary of State September 27, 1989]

LEGISLATIVE COUNSEL'S DIGEST

AB 73, Elder. Subsurface installations: excavation: penalties.

Existing law establishes regional notification centers as nonprofit associations of operators of subsurface installations. Pursuant to existing law, every person planning to conduct any excavation is required to contact a regional notification center at least 2 days prior to excavation and, if practical, to delineate the areas to be excavated. In turn, the center is required to provide an inquiry identification number. Pursuant to existing law, these centers, and the affected members notified, are required to provide specified information regarding any subsurface installations which might be affected by the proposed excavation.

Existing law imposes civil penalties in an amount not to exceed \$5,000 for any member or excavator who violates these and related provisions, and requires that any penalties imposed be deposited in the General Fund.

This bill would define the term "practical" for the purpose of delineating the areas to be excavated, and would require the excavator to identify the area to be excavated in another manner, sufficient to enable the operator to determine the area of the excavation to be field marked, if delineation is determined to be impractical.

This bill would provide that an operator or excavator who negligently violates the provisions be subject to civil penalties not to exceed \$10,000, and that an operator or excavator who knowingly and willfully violates the provisions be subject to civil penalties not to exceed \$50,000.

This bill would specify that a civil action may be brought by the Attorney General, the district attorney, or the local or state agency which issued the permit to excavate. This bill would require that penalties collected as a result of a civil suit shall be paid to the general fund of the public agency bringing the action.

This bill would require that if more than one agency is involved in enforcement, the penalties and fines collected shall be apportioned between them by the court in a manner that will fairly offset the relative costs or losses incurred by the public agencies.

This bill would also define “operator” and “excavator” for purposes of the subsurface installation protection provisions, and would provide that inquiry identification numbers provided by notification centers may be validated for more than 14 days unless if mutually agreed to, and may be revalidated, as specified. This bill would specify that excavators are liable for any damages resulting from their failure to comply with the notification requirements, and would preclude, to a specified extent, damage claims by those owners or operators who themselves fail to comply with requirements of the regional notification center system. This bill would also provide that excavators, as defined, provide notification to notification centers regarding proper markings of the location of subsurface installations and proper excavation techniques. This bill would require notification centers to keep records of specified notifications from excavators and operators for not less than 3 years.

This bill would exempt specified property owners and owners of residential real property from the regional notification center system in cases where excavation efforts do not require a permit issued by a public agency.

This bill would also make technical nonsubstantive changes, reorganizing the provisions into newly titled, separate articles.

The people of the State of California do enact as follows:

SECTION 1. The heading of Chapter 3.1 (commencing with Section 4215) of Division 5 of Title 1 of the Government Code is amended to read:

CHAPTER 3.1. PROTECTION OF UNDERGROUND INFRASTRUCTURE

SEC. 2. The heading of Article 1 (commencing with Section 4215) of Chapter 3.1 of Division 5 of Title 1 is added to the Government Code, to read:

Article 1. Public Utility Protection in Public Contracts

SEC. 3. Section 4216 of the Government Code is repealed.

SEC. 4. Article 2 (commencing with Section 4216) is added to Chapter 3.1 of Division 5 of Title 1 of the Government Code, to read:

Article 2. Regional Notification Center System

4216. As used in this article the following definitions apply:

(a) “Approximate location of subsurface installations” means a strip of land not more than 24 inches on either side of the exterior surface of the subsurface installation. “Approximate location” does not mean depth.

(b) “Excavation” means any operation in which earth, rock, or other material in the ground is moved, removed, or otherwise displaced by means of tools, equipment, or explosives in any of the following ways: grading, trenching, digging, ditching, drilling, augering, tunneling, scraping, cable or pipe plowing and driving, or any other way.

(c) Except as provided in Section 4216.8, “excavator” means any person, firm, contractor or subcontractor, owner, operator, utility, association, corporation, partnership, business trust, public agency, or other entity which, with their, or his or her, own employees or equipment performs any excavation.

(d) “Emergency” means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. “Unexpected occurrence” includes, but is not limited to, fires, floods, earthquakes or other soil or geologic movements, riots, accidents, damage to a subsurface installation requiring immediate repair, or sabotage.

(e) “Inquiry identification number” means the number which is provided by a regional notification center to every person who contacts the center pursuant to Section 4216.2. The inquiry identification number shall remain valid for not more than 14 calendar days from the date of issuance, and after that date shall require regional notification center revalidation.

(f) “Local agency” means a city, county, city and county, school district, or special district.

(g) “Operator” means any person, corporation, partnership, business trust, public agency, or other entity which owns, operates, or maintains a subsurface installation. For purposes of Section 4216.1 an “operator” does not include an owner of real property where subsurface facilities are exclusively located if they are used exclusively to furnish services on that property and the subsurface facilities are under the operation and control of that owner.

(h) “Regional notification center” means a nonprofit association or other organization of operators of subsurface installations which provides advance warning of excavations or other work close to existing subsurface installations, for the purpose of protecting those installations from damage, removal, relocation, or repair.

(i) “State agency” means every state agency, department, division, bureau, board, or commission.

(j) “Subsurface installation” means any underground pipeline, conduit, duct, wire, or other structure, except nonpressurized sewerlines, nonpressurized storm drains, or other nonpressurized drain lines.

4216.1. Every operator of a subsurface installation, except the Department of Transportation, shall become a member of, participate in, and share in, the costs of, a regional notification center. Operators of subsurface installations who are members of, participate in, and share in, the costs of a regional notification center, including, but not limited to, the South Shore Utility Coordinating Council, the Underground Service Alert–Northern California or the Underground Service Alert–Southern California are in compliance with this section and Section 4216.9.

4216.2. (a) Except in an emergency, every person planning to conduct any excavation shall contact the appropriate regional notification center, at least two working days, but not more than 14 calendar days, prior to commencing that excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the excavator and, if practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated.

(b) Except in an emergency, every excavator covered by Section 4216.8 planning to conduct an excavation on private property may contact the appropriate regional notification center if the private property is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the excavator and, if practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated.

(c) The regional notification center shall provide an inquiry identification number to the person who contacts the center pursuant to this section and shall notify any member, if known, who has a subsurface installation in the area of the proposed excavation. An inquiry identification number may be validated for more than 14 days when mutually agreed between the excavator and any member operator so notified that has a subsurface installation in the area of the proposed excavation; and, it may be revalidated by notification to the regional notification center by the excavator prior to the time of its expiration.

(d) A record of all notifications by excavators and operators to the regional notification center shall be maintained for a period of not less than three years. The records shall be available for inspection by the excavator and any member, or their representative, during normal working hours and according to guidelines for inspection as may be established by the regional notification centers.

(e) As used in this section, the delineation is practical when any of the following conditions exist:

(1) When delineating a prospective excavation site with white paint could not be misleading to those persons using affected streets and highways.

(2) When the delineation could not be misinterpreted as a traffic or pedestrian control.

(3) Where an excavator can determine the exact location of an excavation prior to the time an area has been field marked pursuant to Section 4216.3.

(4) Where delineation could not be construed as duplicative.

(f) Where an excavator makes a determination that it is not practical to delineate the area to be excavated, the excavator shall contact the regional notification center to advise the operators that the excavator shall identify the area to be excavated in another manner sufficient to enable the operator to determine the area of the excavation to be field marked pursuant to Section 4216.3.

4216.3. (a) Any operator of a subsurface installation who receives timely notification of any proposed excavation work in accordance with Section 4216.2 shall, within two working days of that notification, excluding weekends and holidays, or before the start of the excavation work, whichever is later, or at a later time mutually agreeable to the operator and the excavator, locate and field mark the approximate location and, if known, the number of subsurface installations which may be affected by the excavation to the extent and degree of accuracy that the information is available either in the records of the operator or as determined through the use of standard locating techniques other than excavating, otherwise advise the person who contacted the center of the location of the operator's subsurface installations which may be affected by the excavation, or advise the person that the operator does not operate any subsurface installations that would be affected by the proposed excavation.

(b) Every operator of a subsurface installation who field marks the location of a subsurface installation shall make a reasonable effort to make field markings in conformance with the following color code and type of installation:

(1) Safety Red—electric power, distribution, and transmission installations, or municipal electric installations.

(2) High Visibility Safety Yellow—gas distribution and transmission installations, oil distribution and transmission installations, or installations containing or transporting dangerous materials, products, or steam.

(3) Safety Alert Orange—telephone and telegraph installations, police and fire communication installations, and cable television installations.

(4) Safety Precaution Blue—water installations and slurry pipelines.

(5) Safety Green—sewer installations.

(c) If, at any time during an excavation for which there is a valid inquiry identification number, an operator's field markings are no longer reasonably visible, the excavator shall contact the appropriate regional notification center. The regional notification center shall contact any member, if known, who has a subsurface installation in the area of the excavation. Upon receiving timely notification or renotification pursuant to this subdivision, the operator shall re-locate and re-mark, within two working days, those subsurface installations which may be affected by the excavation to the extent necessary, in conformance with this section.

(d) The excavator shall notify the appropriate regional notification center of the failure of an operator to comply with this section. The notification shall include the inquiry identification number issued by the regional notification center. A record of all notifications received pursuant to this subdivision shall be maintained by the regional notification center for a period of not less than three years. The records shall be available for inspection pursuant to subdivision (d) of Section 4216.2.

4216.4. (a) The excavator shall determine the exact location of subsurface installations in conflict with the excavation by excavating with hand tools within the area of the approximate location of subsurface installations as determined by the field marking provided in accordance with Section 4216.3 before using any power-operated or power-driven excavation or boring equipment within the approximate location of the subsurface installation, except that power-operated or power-driven excavating or boring equipment may be used for the removal of any existing pavement if there are no subsurface installations contained in

the pavement. If mutually agreeable with the operator and the excavator, the excavator may utilize power-operated or power-driven excavating or boring equipment within the approximate location of a subsurface installation and to any depth.

(b) If the exact location of the subsurface installation cannot be determined by hand excavating in accordance with subdivision (a), the excavator shall request the operator to provide additional information to the excavator, to the extent that information is available to the operator, to enable the excavator to determine the exact location of the installation.

4216.5. The requirements of this article apply to state agencies and to local agencies which own or operate subsurface installations, except as otherwise provided in Section 4216.1. A local agency which is required to provide the services described in Section 4216.3 may charge a fee in an amount sufficient to cover the cost of providing that service.

4216.6. (a) (1) Any operator or excavator who negligently violates this article is subject to a civil penalty in an amount not to exceed ten thousand dollars (\$10,000).

(2) Any operator or excavator who knowingly and willfully violates any of the provisions of this article is subject to a civil penalty in an amount not to exceed fifty thousand dollars (\$50,000).

(3) Except as otherwise specifically provided in this article, this section is not intended to affect any civil remedies otherwise provided by law for personal injury or for property damage, including any damage to subsurface installations, nor is this section intended to create any new civil remedies for those injuries or that damage.

(4) This article shall not be construed to limit any other provision

of law granting governmental immunity to state or local agencies or to impose any liability or duty of care not otherwise imposed by law upon any state or local agency.

(b) An action may be brought by the Attorney General, the district attorney, or the local or state agency which issued the permit to excavate, for the enforcement of the civil penalty pursuant to this section. If penalties are collected as a result of a civil suit brought by a state or local agency for collection of those civil penalties, the penalties imposed shall be paid to the general fund of the agency. If more than one agency is involved in enforcement, the penalties imposed shall be apportioned among them by the court in a manner that will fairly offset the relative costs incurred by the state or local agencies, or both, in collecting these fees.

4216.7. (a) In the case where an excavator has failed to comply with the notification requirements of Section 4216.2 and the requirements of Section 4216.4, the excavator shall be liable for any claim for damages to the subsurface installation arising from the excavation, by an owner or operator who has complied with the requirements of Section 4216.1 and Section 4216.3, to the extent that the damage was proximately caused by the excavator's failure to comply. This subdivision shall not affect claims including, but not limited to, third-party claims, brought against the excavator by other parties for damages arising from the excavation.

(b) In the case where an owner or operator of a subsurface installation has failed to comply with the regional notification center system requirements of Section 4216.1, that owner or operator shall forfeit his or her claim for damages to his or her subsurface installation arising from the excavation against an excavator who has complied with the requirements of Section 4216.2 to the extent damages were proximately caused by the owner or operator's failure to comply. This subdivision shall not affect claims including, but not limited to, third-party claims, brought against the excavator by other parties for damages arising from the excavation.

(c) In the case where an owner or operator of a subsurface installation receives timely notification of proposed excavation work pursuant to Section 4216.2 but fails to comply with subdivision (a) of Section 4216.3, that owner or operator shall forfeit his or her claim for damages to his or her subsurface installation arising from the excavation against an excavator who has complied with the notification requirements of Section 4216.2 to the extent damages were proximately caused by the owner or operator's failure to comply. This subdivision shall not affect claims including, but not limited to, third-party claims, brought against the excavator by other parties for damages arising from the excavation.

4216.8. This article does not apply to any of the following persons:

(a) An owner of real property who contracts for an excavation project on the property, not requiring a permit issued by a state or local agency, with a contractor or subcontractor licensed pursuant to Article 5 (commencing with Section 7065) of Chapter 9 of Division 3 of the Business and Professions Code.

(b) An owner of residential real property, not engaged as a contractor or subcontractor licensed pursuant to Article 5 (commencing with Section 7065) of Chapter 9 of Division 3 of the Business and Professional Code, who as part of improving his or her principal residence or appurtenances thereto is performing or having performed excavation work not requiring a permit issued by a state or local agency.

4216.9. (a) No permit to excavate issued by any local agency, as defined in Section 4216, or any state agency, shall be valid unless the applicant has been provided an initial inquiry identification number by a regional notification center pursuant to Section 4216.2. For purposes of this section, "state agency" means every state agency, department, division, bureau, board, or commission, including the Department of Transportation.

(b) This article does not exempt any person or corporation from Sections 7951, 7952, and 7953 of the Public Utilities Code.

SEC. 5. Section 4217 of the Government Code is repealed.

**Call Before You Dig
In California, Nevada and Hawaii**

1-800-227-2600



Underground Service Alert

4090 Nelson Avenue, Suite A, Concord, CA. 94520-1232

Administrative: Phone 925-798-9504, Fax 925-798-1683